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**Chang et al.**(10) **Pub. No.: US 2021/0308351 A1**(43) **Pub. Date: Oct. 7, 2021**(54) **METHOD AND DEVICE FOR ENRICHING  
AND DETECTING MICROORGANISMS IN A  
BIOLOGICAL SAMPLE**(71) Applicant: **Micronbrane Medical Co., Ltd.,**  
Taoyuan City (TW)(72) Inventors: **Yung Chang**, Taoyuan City (TW);  
**Mengchu Wu**, Zhubei City (TW);  
**Jheng-Fong Jhong**, Kaohsiung City  
(TW); **Yan-Wen Chen**, Kaohsiung City  
(TW); **Hau Hung**, Zhubei City (TW)(73) Assignee: **Micronbrane Medical Co., Ltd.,**  
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**ABSTRACT**

Disclosed are a method and system for enriching and detecting microorganisms in a biological sample. The method allows the biological sample to be filtered through a polymer-modified substrate. The polymer-modified substrate is highly specific in capturing or separating human-derived nucleated cells, and allows the microorganisms to penetrate through it. During the process, a high level of microorganisms (bacteria, mycoplasmas, fungi, viruses, spores etc.) can be enriched in the sample and thus the interference from nucleated cells such as leukocytes can be reduced.

**Specification includes a Sequence Listing.**